



The EVX1100 tag functions both as a global satellite asset tracking tag and a cloud-gateway for the EVX1000 family of robust self-configured IoT asset tracking and wireless sensing networks.

The EVX1100 Satellite Tag and Gateway delivers both functions cost-effectively in a compact rugged battery-powered unit. The EVX1100 tag when used in conjunction with EVX1000 family asset and sensor tags form a comprehensive self-configured IoT asset tracking and sensing network for a broad range of assets and items in-transit and in-operations. The EVX1100-based network provides global network coverage without requiring any cables and delivers superior battery life based on EVX power management technology.

## Applications

- Remote monitoring and asset tracking
- Oil & Gas operations and spill-recovery
- Remote operations and storage sites asset management
- Ocean container tracking
- Remote vehicle yard management
- Remote construction material and equipment tracking

## Benefits

- Full-coverage global remote tracking and monitoring with GPS location
- Both standalone satellite tag and network gateway
- Local-wireless network capable with 10,000's feet range in multi-hop mode
- Easy installation / no maintenance
- No infrastructure or cables
- Long Battery life
- Operational in harshest environments

## Features

- Fully global coverage using Iridium satellite network short-burst data link
- GPS/GNSS location with 8.2 ft (2.5 m) accuracy
- Local-wireless mesh networkable with up to 1200 ft wireless range per link
- Battery powered with up to 1 year life
- Operational in -30°C to 70°C
- IP67 Water Immersible
- Autonomous self-configuring network

Technical Specifications EVX1100 Satellite Tag & Gateway	
<b>Satellite Link</b>	
RF	1616-1626.5 MHz
Network & Protocol	Iridium Short-Burst Data Link
Antenna	Internal patch, Performance not affected by mounting on metal surfaces
Beacon rate	Once every 2sec to once every week , Software programmable through USB port
<b>GPS Link</b>	
RF	1559-1610 MHz (receive only)
Protocol	GNSS (GPS, GLONASS, QZSS and SBAS) , 56 channels GPS/QZSS L1C/A
Location accuracy	~2.5m (8.2 feet) in autonomous mode
Time to Location Fix	30 sec cold-start , 1 sec hot-start
Antenna	Internal omni-directional, Performance not affected by mounting on metal surfaces in most orientations, including orientation for best satellite data link performance
<b>Wireless Tag-to-Tag &amp; Mesh Network</b>	
RF	2.4GHz , IEEE802.15.4, ISM band
Protocol	Ultra-low power optimized 6LoWPAN mesh
Range	Up 1200 ft to EVX wireless devices with internal compact antenna
Antenna	Internal, omni-directional, Performance not affected by mounting on metal surfaces
RF power / range	Software programmable through USB port
Beacon rate	Once every 2sec-12hrs , Software programmable through USB connection
<b>Motion-Based Operation &amp; Battery-Life Optimization</b>	
Motion Sensor	Thresholds and motion detection criteria user programmable through USB Use case specific factory-defaults are available
Stationary mode	Reduced satellite and GPS reports Mesh network update rate change with factory default to "No Change" All parameters user programmable through USB Use case specific factory-defaults are available
Storage mode	Factory default: No satellite, GPS, mesh communication All parameters including various network rates are user programmable through USB
<b>Power</b>	
Battery	2 x D size 3.6 V primary lithium (Li-SOCl <sub>2</sub> ), User replaceable , Non-rechargeable
Battery life	> 1 year with 3min mesh network gateway update rate & report generation, 2 daily report satellite uplinks with GPS location
Low Battery Indicator	Through satellite link to application software
<b>Physical</b>	
Size	7.90" x 3.57" x 2.46"
Weight	21.7 oz (616 grams)
Mount	Two mounting holes for tie-wrap or screw; Optional industrial-grade back adhesive
<b>Environment</b>	
Enclosure	IP67 dust tight
Temperature	Recommended: -30°C to 70°C , Extreme: -40°C to 80°C
Moisture	5 feet Water immersible for >1hr
Vibrations/shock	6 feet drop on concrete; 10g random vibrations 10Hz-2kHz; Mil810



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## About Evigia

Evigia Systems, Inc. designs and produces innovative ultra-low power sensors, integrated wireless systems, and sensor data analytics that bring the Internet of Things to real-world business impact for organizations around the globe. Ultra-low energy usage + advanced sensing is the core of our DNA. Evigia has a proven record in design, delivery, manufacturing and support of sensing and tracking systems deployed in the most demanding applications and harshest environments. We enable organizations to put the critical IoT insights obtained from remote sensors directly into the hands of the decision-makers who need them.